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**CAN ARTIFICIAL INTELLIGENCE (AI) REALLY OUTSMART HUMAN? : A REFLECTIVE STUDIES IN THE LIGHT OF ‘BEING-IN-THE-WORLD’ OF HEIDEGGER’S ONTOLOGICAL PHENOMENOLOGY**

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**I. Introduction:**

Ever since, the first “Turing Test”<sup>3</sup> was conducted by the British Computer Scientist Allan Mathison Turing way back in 1950, there developed a good number of Artificial Intelligence systems, all of which aims to pass certain conditions laid down by the said test which it says is necessary for a machine to be a human like. Alongside this line of progress, there also developed Artificial Intelligence in the model of what science fictionists dreamt of to fully simulate humans, contrary to partial resemblances considerable from certain parameters only. In the light of the two models, Artificial Intelligence falls into two categories – Weak and Strong Artificial Intelligence, where in Weak Artificial Intelligence a machine’s resemblance to human is only within or influenced of the programmed software vis-a-vis Strong Artificial Intelligence, in which the machine’s capacity is such that it is wholly resembling human for being exercising its own will outside of its program algorithms, including the physical likeness and emotions. Despite the differences in category the amazing abilities of third generation smart robots (AI) are put the human existence a questionable one, of whether the difference between the two at this juncture is in kind or only in degree? Technology stands helpless to answer this question as *the concern is something metaphysical or transcendental where the parameter goes beyond the empirical verifiability*. Hence our enquiry on this regard focuses on the philosophers’ account of human beings with special emphasis on Martin Heidegger’s notion of Dasein’s ‘Being-in-the-world’.

The first phase of the paper will have a glimpse of the latest developments in this field; what stage Artificial Intelligence is at today. And the second phase will look into the ontological dimension of human beings, a being that is distinct and complex whole.

**II. Artificial Intelligence today:**

It is obvious that ideas are not the same at all, with regard to the condition necessary for a machine to be a human like, but out of the many parameters, if at all



rationality is considered to be the necessary and sufficient condition for an entity to be intelligent or as thinking, the modern Artificial Intelligence manipulating formal symbols in accordance with a set of pre-defined rules,

3 See the “Turing Test” (1950); the test insists that a machine to be human like is to be able to imitate humans.

have proved successful in behaving in a rational manner. In this case, such a machine qualifies to be a thinking entity like humans. Take the case of IBM’s improved version of chess playing supercomputer known as ‘Deep Blue’<sup>4</sup>, specially designed to beat human (it’s not a new one though). On May 11, 1997, before millions of spectators around the world Deep Blue beat the world chess champion Garry Kasparov (many considered him to be the greatest chess player of all time). Ever since then, computer consistently beat human in a worldwide battle between man and machine. Even the commercially-available chess program can beat human now to show that machine outthinks human. Given that chess is often an indication of human’s intelligence, it’s no surprise then that the ability of a computer to defeat human is considered one of the finest achievements in Artificial Intelligence. Besides this, Fuzzy Logic<sup>5</sup>, Autonomous cars and robotic helicopters – the recent developments, also proves that machine’s intelligence is akin to human in terms of doing things on its own. A common example used to explain Fuzzy Logic is with automatic transition gear boxes in cars. Its function is such that when automatic transition was set to go into the third gear at 30 kilometers per hour, then it would do so regardless of the road terrain you were on. Suppose the car is too inclined, might cause the vehicle turn upside down, it would slow down to the safe speed by going back to second gear, but would resume the same speed as soon as possible. In this case one need not be a good driver; the machine itself knows the need. Parallel to this, the Google’s newly developed car, equipped with a plethora of sensors and computer, can go about in the street without crushing others. Alongside this technology, the German AutoNOMOS group initiated car called “made in Germany” – a conventional VW Passat modified for “drive by wire”, has a successful test drive of covering 80 kilometers in all, driving on its own. In fact, it is the first autonomous car licensed for automatic driving in the street and highways of the German states, Berlin and Brandenburg. Following this, the project leader – Professor Raul Rojas has proudly announced that technology is matured to set autonomous vehicles available in public roads, once the thorny legal issues are cleared off. (Fast Track to Artificial Intelligence p 60)

4 IBM’s Deep Blue – designed in 1997 uses parallelized software running on a 32-node RS/6000 SP\* supercomputer. It has 16 specialized chess accelerator chips running on each node (a total of 512 accelerator chips) which boost its powerful performance.

5 Dr. Lofti zadeh, an Iranian scientist of the University of California is the man behind Fuzzy Logic.



It was in August 2008 that Computer scientists at Stanford University led by Professor Ng, developed an Artificial Intelligence system that enables autonomous helicopters to teach themselves to fly and perform difficult stunts by watching the maneuvers of a radio-control helicopter flown by a human pilot. The result is an autonomous helicopter then can perform a complete air show of complex tricks on its own. The innovation here is unlike the earlier Artificial Intelligence systems, the machine at least sees and aware of its environment, accordingly its movement is made. When Artificial Intelligence is taken in the form of 'robots' the interaction with the environment is more practical, hence more human like in nature.

Machines ability of using natural language as humans do is an indication that Artificial Intelligence already have come this far to be able to converse humans without bias. Take the case of the recently developed, a high-powered version of 'CleverBot.'<sup>6</sup> At the Techniche 2011 Festival at IIT Guwahati, it took part alongside humans in a formal Turing test. The results from 1,334 votes were astonishing: CleverBot was judged to be 59.3 per cent human, while humans achieved a marginally higher 63.3 per cent. The amazing performance of CleverBot shows that Artificial Intelligence cannot be differentiated from human in the case of using natural language. Let us also have closer look to 'IBM's Watson'<sup>7</sup> – a natural language processing system. IBM describes it as “an application of advanced *Natural Language Processing, Information Retrieval, Knowledge Representation and Reasoning, and Machine Learning* technologies to the field of *open domain question answering*.” When it competed against the two most well-known and successful Jeopardy champions – Ken Jennings and Brad Rutter in the famous US Quiz show called 'Jeopardy' 10 on February 14, 2011 last year; it won over them, getting it the unofficial title of the smartest Artificial Intelligence system in the world.

### III. Human (Dasein) as Being-in-the-world: A Heideggerian perspective

Martin Heidegger, one of the greatest philosophers in modern times, in his ontological investigation of Being understands human (Dasein) as “Being-in-the-world.”

<sup>6</sup> 'Techniche' is a technological festival of IIT, Guwahati held annually. To my surprise or fortunate rather Cleverbot was exposed in the fest last year 2011 in which I also participated in it.

<sup>7</sup> IBM's Watson is a workload optimized system based on IBM Deep QA architecture running on a cluster of IBM POWER7 processor-based servers, unofficially declared as smartest AI in the world.

In colloquial German, Dasein can mean 'everyday human existence', although its literal meaning is translated as 'being-there.' By saying this Heidegger emphasized upon the lived-dimension of human existence for he, in tuned with his predecessors believed that existence always precedes essence. By the expression Being-in-the-



world, Heidegger incorporated certain essential relationships where Dasein finds itself in, so as to fulfill its ontological conditioned being in the world. Heidegger describes Dasein's being as 'thrown' in the world without any prior choice about its own existence. This also indicates that there already is the world, where there is a harmonious blend of things (beings) in which Dasein meaningfully and purposefully situated. This harmonious blend is what Heidegger describes as 'ready-at-hands' (equated with 'World'), which always shows that the world as such, is a balanced one, meaning oriented and sustained on its own. And this primordial phenomenon is something unshaken, a priori, mysterious forever, but very true in a sense that nobody can deny it for it is experienced by anyone. Hence, Dasein's Being-in-the-world is being in the (already) a priori conditioned situations where its being is molded, shaped up, nurtured and driven by those a priori conditions without itself interfere in it in terms of making decision and choice. Unlike Jean Paul Sartre who goes on proclaiming that 'my being is determined by me'<sup>8</sup>, Heidegger assessed that it's not Dasein which determines its own existence, hence uses the expression thrown in the world, to state that Dasein always stands helpless in terms of its ontological conditioned being. Rather it becomes a constant issue for it. What then determines Dasein's being fundamentally is says Heidegger Being itself. The uncanny but undeniable Being is after all what determines every entities in their respective beings.

What defines Dasein's being-in-the-world, is the inevitable a priori conditions which Dasein but unreflectively taken up for the necessary constituents factors of its existence. Those conditions includes 'being-there' to care for the four fold, to dwell, to be mortal, to be with others (being-with-others), together these defines Dasein as context bound, embodied being, and to be under the influence of numerous meaningful relations. And by saying unreflective, it does not mean that the rationality attributed to Dasein has no place in its being-in-the-world, rather it is acknowledged in a sense of enabling Being's disclosure into meaningful inter-relations which Dasein itself purposefully inherited it for its essence.

8 According to Sartre (1905), Man is condemned to be free; because once thrown into the world, he is responsible for everything he does. We are our choices.

Besides this Dasein's rationality is such that apart from the awareness of its own existence that it is part and parcel of the so-called inter-related world, it even has the capacity to 'care' for those relations. In this sense Dasein (human) is the only being which engages in daily work in a true sense (if authenticity rules) the capacity of which cannot be found in other beings including machines.

Despite its helplessness (in terms of determining its own being), Dasein's Being-in-the-world is privileged with numerous activities, provided it is performed and taken up within the understanding of Dasein itself. Here Heidegger clearly acknowledged the rationality of Dasein in terms of understanding and appreciating others and most of all for the inquiry of Being itself. For Dasein's capacity is such that it even understands its own existence or being which Heidegger identifies it as the perfect



position for the understanding of the entire stories of Being itself. Dasein's rationality always serves as the perfect parameter for it never exhausted with the understanding of its present situation, but also included the awareness of its future existence even death – the inevitable one for its being to be accomplished, the overall understanding of which matters a lot for the Being to reveal it. In fact, without such capacity, the mysterious, concealed ontological Being cannot be revealed at all. Only within the rationality of Dasein that the veil of being can be cleared off. And it is only within the understanding of Dasein that its being-in-the-world has a meaning.

In the Heideggerian context Dasein is more than human existence, but there is none other than human being which possesses the capacity of Dasein. In this sense it may be interpreted that Dasein has a scope of manifesting itself into any entity possessing a Dasein like character in terms of rationality, reflectivity, or consciousness in a subjective sense. That is why it somehow leaves spaces to be able to interrelate with the modern Artificial Intelligence (AI) as far as its capacity of coping with the environment unbiased and its rationality is concerned. But Heidegger's interpretation of Dasein as such is that it pays more emphasis on its being, that is an embodied being, practically engaged in daily works, use tools as tools, culturally and linguistically conditioned one which cannot be measured only by referring to rationality or capacity to think – the same old parameter in every conventional philosophies

9 Martin Heidegger (1927 p 53 – 62)

In fact, Heidegger wanted to overcome such dichotomy in his phenomenological investigation. Metaphysics, in this respect is what he says behind all those false interpretations.

Dasein's Being-in-the-world ontologically is to engage in different activities, to have connection with others, to dwell, to interrogate, to talk, etc – all as the essential components of its existence. Hence human is meaning-oriented, context bound, transcendently rooted being. Basically, there is nothing which defines consistently Dasein's fundamental existence other than its nature of 'being-there' to the world.

***But Dasein (hurtifickman) exists either in one of the two modes of his possible existences: authentic and inauthentic – a division which matters a lot for a comparative studies of man and machine.12***

In his authentic mode of existence Dasein (human) is ontologically privileged with a priori understanding of language, sexuality, sense of the future, innate understanding of his own existence. Dasein even foresee his inevitable future life. In that sense, Dasein is ahead of himself (his present existence), for he knows the meaning of his own existence, including the awareness of his possible mode of existence including death that is forever ahead of him.

On the contrary, in his lower or inauthentic mode of existence, Dasein (human)



is forgetful of his own being; he exists in a way that is not the specifically human way of existing – in terms of questioning, inquiring and understanding, with his meaning orientedness. His being is not an issue for him. He exists as what he calls ‘des man’, the average man who exists in everydayness, the public and unreflective ‘they’ for whom his being is not an issue. But this point is crucial in a sense that it can consistently be compared with the machine’s awareness of things.

What are the attributes of Dasein? Can an artificial person satisfy these requirements so as to qualify as a Dasein, a true being, like biological people? Is a robot of the most sophisticated construction human in the Heideggerian sense?

A Heideggerian response will show that so long as the human embodied being essentially embedded in the world and engages in the practical but meaningful daily works is concerned, machines reflectivity in terms of coping with the environment in a limited ways is no subtler than the human existence. For instance, the rationality of human associated but by forgetfulness is forever mysterious, which cannot at all be consistently found in the machines. For unlike the human forgetfulness, machine’s forgetting things entails something’s lacking or no longer in a position to function well as it is to be. An instance can be given from the IBM’s Watson in ‘the Jeopardy’ show. Before millions of eye witnessed on their television sets, Watson unveiled itself that it never aware of its environment, causing it to miss a question. The embarrassing incident happened when Watson failed to understand what another participant said. When the host – Alex Trebek read out a clue, Jennings war first to buzz in with the question: “what are the 20s?” asking in fact, “what is 1920s?” asked only by giving the clue. Apparently, Watson was unable to sense the answers given by his competitors – partly because they were using vocal responses, which Watson wasn’t built to take as input (Fast Track to Artificial Intelligence p 82). It nevertheless vanquishes human but without the knowledge of what it is doing and the purpose behind the competitions.

From the light of the above analysis, it may be concluded that when technology able to synthesize the fragmented knowledge of Artificial Intelligence, and collectively put in one form to a single Artificial Intelligence system, machine is said to have reached the final destiny. One should be positive in that since it is an on-going project. But the irony is even if it simulates all what humans behave, at least, for some reasons like meaning, values, and purpose, i.e., ontologically attached to us, that machine will never experience and sensed things as exactly as it is experienced and felt by us. As per ‘Godel’s theorem’<sup>10</sup>, we humans can always develop statements which will not be supported by any machine. For example, we understand the concept of infinity but machine can never understands this concept and if provided with a non-terminating series edition, it will go on calculating the values without knowing when to stop. The danger of technology is its limiting of the revealing of being itself. In sum the social practices containing an understanding of what it is to be a human self, those containing an interpretation of what it is to be a thing, and those defining society fit together. They add up to an understanding of Being (Dreyfus, 55). Even if computers may be able to cope with the world based on technological advances (damn that Big Blue), but their



style of coping is still different from that which Heidegger understood and spoke of in his definition of Dasein. This is what makes our being distinct, this specific style of coping. It is a style consisting of unknown and known, of past and future, of stumbling not gliding. Taking the account of Martin Heidegger's notion of Dasein, any rationality of being able to cope with the world, no matter what entity it is, can be accommodated to it.

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10 see Godel's theorems, proven by Kurt Gödel in 1931

The rationality of machines in that sense is what cannot be underestimated. But human existence is something meaning-oriented, culturally and linguistically oriented being, uncanny which is distinct from any other beings in the world.

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